



1 causes the clamp to distort downward from the  
2 inner edge to the outer edge of the peripheral  
3 contact surface so as to force the inner edge in  
4 contact with the upper surface of the disc,  
5 thereby distributing the downward force on the  
6 fastener along an entire length of the straight  
7 line segment.

8  
9 2. The apparatus of claim 1, wherein the straight line  
10 segment taper is constant along the entire peripheral  
11 contact surface.

12  
13 3. The apparatus of claim 2, wherein the taper is about  
14 three degrees.

15  
16 4. The clamp from claim 1, wherein the disc is contained  
17 within a disc base assembly which further contains one or  
18 more raised ribs incorporated onto the inner surface of the  
19 disc base, thereby directing circulating air towards a  
20 filter.

21  
22 5. A clamp comprising:

23  
24 a round, disc shaped body having an outer, round  
25 peripheral edge;

1       said body having a central hole to mate to a hub;  
2  
3       said body having a lower surface with a clamp to disc  
4       contact surface;  
5  
6       said clamp to disc contact surface further comprising  
7       a peripheral edge and an inner edge;  
8  
9       said clamp to disc contact surface having a straight  
10       line segment along a radius from a center of the  
11       hub to the peripheral edge; and  
12  
13       said straight line segment having an incline angle  
14       starting at the peripheral edge and extending  
15       upward to the inner edge of the clamp to disc  
16       contact surface.  
17  
18       6. The clamp of claim 5, wherein the straight line  
19       segment incline angle is continuous along the entire clamp  
20       to disc contact surface.  
21  
22       7. The incline angle of claim 6, wherein said incline  
23       angle is about three degrees.  
24       8. The clamp of claim 7, wherein when the clamp is  
25       fastened by a fastener through the clamp into a hub, a force  
26       will emanate from the fastener outbound to the peripheral

1 edge of the clamp to disc contact surface, wherein the force  
2 causes the clamp to distort downward from the inner edge to  
3 the peripheral edge of the clamp to disc contact surface so  
4 as to force the inner edge in contact with an upper surface  
5 of a disc, thereby distributing the force on the clamp along  
6 an entire length of the straight line segment.

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8 9. The clamp of from claim 8, wherein the force causes  
9 the straight line segment incline angle to decline to zero  
10 degrees.

11

12 10. The clamp from claim 5, wherein the disc is  
13 contained within a disc base assembly which further contains  
14 one or more raised ribs incorporated onto the inner surface  
15 of the disc base, thereby directing circulating air towards  
16 a filter.

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18 11. A disc clamp comprising:

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20 an annular clamp means functioning to fit over a hub  
21 to hold a disc tightly to the hub;

22

23 said annular clamp means having a lower clamp to disc  
24 surface means, functioning to push the disc  
25 against the hub;

1           said annular clamp means having a taper means  
2           functioning to start a taper at an outer edge of  
3           the clamp to disc surface means to an ending  
4           inside edge of the clamp to disc surface means;  
5  
6           wherein a fastener means functions to force the  
7           annular clamp means against the hub; and  
8  
9           wherein a force emanating outbound from the fastener  
10          means is distributed about evenly along the  
11          clamp to disc surface means, thereby minimizing  
12          a distortion of the disc.  
13  
14          12. The apparatus of claim 11, wherein the taper means  
15          further comprises an angle of about 3 degrees.  
16  
17          13. The clamp from claim 11, wherein the disc is  
18          contained within a disc base assembly which further contains  
19          one or more raised ribs incorporated onto the inner surface  
20          of the disc base, thereby directing circulating air towards  
21          a filter.  
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